

WHAT IS CLAIMED IS:

1. A process for preparing a polyurethane foam, comprising:
reacting a polyol having a number-average molecular weight of not less
5 than 1000 and less than 2500 with a polyisocyanate compound in the presence of
a catalyst and a blowing agent in a mold, to give a molded article having a
density of 0.4 to 0.8 g/cm³, and
heating the resulting molded article to a temperature of 60° to 100°C.
- 10 2. The process according to claim 1, wherein the reaction is carried out in a
mold to give a molded article having a hardness of 50 to 75 (Asker C).
3. The process according to claim 1, wherein the ratio of the polyol to the
polyisocyanate compound is adjusted to an isocyanate index of 90 to 110.
- 15 4. The process according to claim 1, wherein the polyol is a polyester-polyol.
5. The process according to claim 1, wherein said polyurethane foam has a
compression set of 10 to 25%.
- 20 6. A polyurethane foam obtained by the process of claim 1.
7. The polyurethane foam according to claim 6, wherein the molded article
is prepared in a mold, the resulting molded article is demolded from a mold, and
25 thereafter the molded article is heated to a temperature of 60° to 100°C.

8. The polyurethane foam according to claim 6, wherein the compression set is 10 to 20%, in a case where the molded article has a density of 0.6 g/cm^3 and a hardness of 65 ± 2 (Asker C), a case where the molded article has a density of 0.65 g/cm^3 and a hardness of 67 ± 2 (Asker C), or a case where the molded article has a density of 0.7 g/cm^3 and a hardness of 70 ± 2 (Asker C).

9. A cushioning material made of the polyurethane foam of any one of claims 6 to 8.

10. The cushioning material according to claim 9, wherein the cushioning material is used for shoe soles of sports shoes.